WET CHEM DATA ANALYSIS SHEET

Lab Name: STL
Lab Code: STL
SAS No.:

Contract:
Case No.:
SDG No.: A2791

Client Sample ID: VC10.0A
Lab Sample ID: 012791A-18D1

Matrix: Soil

Analyte	Concentration	C	Units
TOC 1	11,400		mg/Kg
TOC 2	11,100		mg/Kg
TOC 3	7,050		mg/Kg

WET CHEM DATA ANALYSIS SHEET

Lab Name: STL
Lab Code: STL
SAS No.:

Contract:
Case No.:
SDG No.: A2791

Client Sample ID: VC10.0A
Lab Sample ID: 012791A-18D2

Matrix: Soil

Analyte	Concentration	C	Units
TOC 1	11,100		mg/Kg
TOC 2	11,400		mg/Kg
TOC 3	7,210		mg/Kg

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.I

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791A SAS No.: _____ SDG No.: A2791

Matrix (soil/water): SOIL Lab Sample ID: 012791A-19

% Solids: 60.2 Date Received: 11/16/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	39.8				G
	TOC	9320		mg/Kg		D
	TOC	8930		mg/Kg		D
	TOC	9050		mg/Kg		D

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.C

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791A SAS No.: _____ SDG No.: A2791

Matrix (soil/water): SOIL Lab Sample ID: 012791A-20

Solids: 54.1 Date Received: 11/16/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	45.9				G
	TOC	12100		mg/Kg		D
	TOC	11800		mg/Kg		D
	TOC	12200		mg/Kg		D

Comments:

FORM I - WC

ORGANICS APPENDIX

U – Indicates that the compound was analyzed for but not detected.

J – Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B – This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N – Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S – Estimated due to surrogate outliers.

X – Matrix spike compound.

(1) - Cannot be separated

(2) – Decomposes to azobenzene. Measured and calibrated as azobenzene.

A – This flag indicates that a TIC is a suspected aldol condensation product.

E – Indicates that it exceeds calibration curve range.

D – This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C – Confirmed by GC/MS.

T – Compound present in TCLP blank.

P – This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

SEVERN TRENT SERVICES

STL Connecticut

INORGANICS APPENDIX

C – Concentration qualifiers

U – Indicates analyte was not detected at method reporting limit.

B- Indicates analyte result between IDL and contract required detection limit (CRDL)

Q – QC qualifiers

E – Reported value is estimated because of the presence of interference

M – Duplicate injection precision not met

N – Spiked sample recovery not within control limits

S – The reported value was determined by the method of standard additions (MSA)

W – Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

* - Duplicate analysis not within control limit

+ - Correlation coefficient for MSA is less than 0.995

M – Method codes

P – ICP

A – Flame AA

F – Furnace AA

CV – Cold vapor AA (manual)

C – Cyanide

NR – Not required

NC – Not calculated as per protocols

SEVERN TRENT SERVICES

STL Connecticut
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Shelton, CT 06484

Tel: 203 929 8140
Fax 203 929 8142
www.stl-inc.com

December 14, 2001

Ms. Megan Brown
TRC ENVIRONMENTAL
5 Waterside Crossing
Windsor, CT 06095

Dear Ms. Brown :

Please find enclosed the analytical results of 24 sample(s) received at our laboratory on November 16-20, 2001. This report contains sections addressing the following information at a minimum:

- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7001-2791B	Purchase Order #38077
Project ID: ISLANDER EAST	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 929-8140 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Very truly yours,

Jeffrey C. Curran
Laboratory Manager

JCC

This report contains 36 pages.

7001-2791B
TRC ENVIRONMENTAL

Case Narrative

Sample Receipt –The samples were received at 8°C. The client was notified, and the laboratory was instructed to proceed with the analyses.

The following analyses were subcontracted out to the indicated laboratories:

Specific Gravity sent to STL – VT, 55 South Park Dr., Colchester, VT 05446.

8021 BTEX sent to STL - North Canton (OH), 4101 Shuffel Dr. NW, North Canton, OH 44720.

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3010A, 3050B/6010B; mercury-7470A, 7471A.

No problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Semi-Volatile Organics - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Methods 3510C/3550C/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

The following samples exhibited internal standard area suppression. The samples were re-analyzed with similar results confirming matrix interference. Only the original analyses are reported.

VC10.G	VC10.F	VC10.H
VC10.E	VC10.MB	VC10.L
VC10.K	VC15.B	VC10.J

Sample VC10.D exhibited internal standard area suppression and matrix interference was confirmed my similar results for the matrix spike samples VC10.DMS and VC10.DMSD.

The spike recovery for the compound pyrene, was above recovery limits for SBLKN1FMS.

The spike recovery for the compounds pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene and benzo(g,h,i)perylene, were above recovery limits for SBLKWPFMS. The recovery for the all compounds were above recovery for VC10.WMS and most were above recovery limits for the MSB and MSD.

Surrogate recoveries were above the limits for pyrene-d10 on eleven samples and fluorene-d10 was below the limits on five samples.

The laboratory does not have enough data to establish control limits for the low concentration soils based on historical data. The limits presented here are based on method TO13A.

Sample Calculation:

Sample ID – VC10.S
Compound - acenaphthylene

$$\frac{(44603)(1)(1000)(1.0)}{(62742)(1.671)(2)(30.7)(.61)} = 11.35 = 11 \text{ ug/kg}$$

Classical Chemistry - The samples in this SDG were analyzed for percent solids and total organic carbon according to Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986. Percent moisture results were obtained by calculation. Samples were analyzed in triplicate for total organic carbon by method 9060. No analytical problems were encountered.

Polychlorinated Biphenyls (PCB's) - PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All soil samples were acid and sulfur cleaned up prior to analysis.

All soil samples really could have used more sulfur cleanup, but due to limited extract volume this was not possible.

Samples were brought to a 2ml final volume in order to meet client required detection limits.

The amount spiked was not adjusted for the lower final volume for the QC checks and MS/MSD's.

The surrogate, tetrachlorometaxylene, was outside of retention time windows on the RTX-35 column in samples PBLK83, VC10.L, VC10.K, VC15.B, VC10.J, VC10.D, VC10.F, VC10.H, VC10.H, VC10.G, VC10.DMSB1, and VC10.DMS1. This shift was taken into consideration when samples were reviewed for target compounds.

The surrogate, tetrachlorometaxylene, was outside of retention time windows on the RTX-35 column in the AR16603 and PIBLK continuing calibration checks analyzed on 12/7/01 at 12:42, 13:22, 23:25; and 12/8/01 at 00:46. These were bracketing standards for

PBLK83, VC10.L, VC10.K, VC15.B, VC10.J, VC10.D, VC10.F, VC10.H, VC10.H, VC10.G, and VC10.DMS1.
This shift was taken into consideration when samples were reviewed for target compounds.

The %RPD of Aroclor 1260 for samples VC10.DMS/MSD was over QC criteria.

The Aroclor 1260 spike present in sample VC10.DMSB was outside of retention time windows on the RTX-35 column. This shift was taken into consideration when the sample was reviewed for target compounds.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:
Sample ID –VC10.DMSB1
Compound - Aroclor 1260 peak at retention time 22.23 on the RTX-35 column.

$$\frac{(500433\text{area})(2000\text{ul})}{(351115\text{area/ng})(30\text{g})(1\text{ul})} = 95\text{ug/kg}$$

TABLE SV-1.0
7001-2791B
TRC ENVIRONMENTAL
PAH'S

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKN1 SBLKN1 1.00	EB111701 012791B-08 SBLKN1 1.00		Quant. Limits with no Dilution
Naphthalene	U	1J		10
2-Methylnaphthalene	U	.4J		10
Acenaphthylene	U	U		10
Acenaphthene	U	U		10
Fluorene	U	U		10
Phenanthrene	U	U		10
Anthracene	U	U		10
Fluoranthene	U	U		10
Pyrene	U	U		10
Benzo(a)anthracene	U	U		10
Chrysene	U	U		10
Benzo(b)fluoranthene	U	U		10
Benzo(k)fluoranthene	U	U		10
Benzo(a)pyrene	U	U		10
Indeno(1,2,3-cd)pyrene	U	U		10
Dibenzo(a,h)anthracene	U	U		10
Benzo(g,h,i)perylene	U	U		10
ate Received ate Extracted Date Analyzed	 11/21/01 11/24/01	11/20/01 11/21/01 11/28/01		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE SV-1.1
7001-2791B
TRC ENVIRONMENTAL
PAH'S

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKKP SBLKKP 1.00	EB111501 012791B-01 SBLKKP 1.00		Quant. Limits with no Dilution
Naphthalene	U	U		10
2-Methylnaphthalene	U	U		10
Acenaphthylene	U	U		10
Acenaphthene	U	U		10
Fluorene	U	U		10
Phenanthrene	U	U		10
Anthracene	U	U		10
Fluoranthene	U	U		10
Pyrene	U	U		10
Benzo(a)anthracene	U	U		10
Chrysene	U	U		10
Benzo(b)fluoranthene	U	U		10
Benzo(k)fluoranthene	U	U		10
Benzo(a)pyrene	U	U		10
Indeno(1,2,3-cd)pyrene	U	U		10
Dibenzo(a,h)anthracene	U	U		10
Benzo(g,h,i)perylene	U	U		10
Date Received		11/16/01		
Date Extracted	11/20/01	11/20/01		
Date Analyzed	11/28/01	11/28/01		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE SV-1.2
7001-2791B
TRC ENVIRONMENTAL
PAH'S

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKWP SBLKWP 1.00	VC10.MB 012791B-02 SBLKWP 1.62	VC10.L 012791B-03 SBLKWP 1.65	Quant. Limits with no Dilution
Naphthalene	U	2.6J	2.8J	3.3
2-Methylnaphthalene	U	1.7J	2.1J	3.3
Acenaphthylene	U	3J	5.2J	3.3
Acenaphthene	U	U	.53J	3.3
Fluorene	U	.86J	U	3.3
Phenanthrene	U	7.3	11	3.3
Anthracene	U	2.6J	5.4	3.3
Fluoranthene	U	9.7	16	3.3
Pyrene	U	30	48	3.3
Benzo(a)anthracene	U	8.5	16	3.3
Chrysene	U	9.8	16	3.3
Benzo(b)fluoranthene	U	8.3	17	3.3
Benzo(k)fluoranthene	U	10	17	3.3
Benzo(a)pyrene	U	12	22	3.3
Indeno(1,2,3-cd)pyrene	U	12	22	3.3
Dibenzo(a,h)anthracene	U	U	U	3.3
Benzo(g,h,i)perylene	U	16	34	3.3
ate Received		11/16/01	11/16/01	
ate Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	11/30/01	12/04/01	12/04/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3 Soil
7001-2791B
TRC ENVIRONMENTAL
PAH'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.K	VC15.B	VC10.J	Quant. Limits with no Dilution
Lab Sample I.D.	012791B-04	012791B-05	012791B-06	
Method Blank I.D.	SBLKWP	SBLKWP	SBLKWP	
Quant. Factor	1.60	1.66	1.67	
Naphthalene	4.5J	4.3J	5J	3.3
2-Methylnaphthalene	3.3J	2.6J	3.3J	3.3
Acenaphthylene	11	13	15	3.3
Acenaphthene	1.9J	1.9J	2.4J	3.3
Fluorene	3J	2.6J	2.9J	3.3
Phenanthrene	26	23	33	3.3
Anthracene	9.9	9.5	13	3.3
Fluoranthene	40	36	56	3.3
Pyrene	120	110	130	3.3
Benzo(a)anthracene	35	34	40	3.3
Chrysene	38	39	49	3.3
Benzo(b)fluoranthene	40	38	51	3.3
Benzo(k)fluoranthene	37	40	58	3.3
Benzo(a)pyrene	49	48	70	3.3
Indeno(1,2,3-cd)pyrene	51	53	66	3.3
Dibenzo(a,h)anthracene	U	U	18	3.3
Benzo(g,h,i)perylene	74	72	92	3.3
Date Received	11/16/01	11/16/01	11/16/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/04/01	12/04/01	12/04/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE SV-1.4
7001-2791B
TRC ENVIRONMENTAL
PAH'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.E	VC10.D	VC10.D MS	Quant. Limits with no Dilution
Lab Sample I.D.	012791B-09	012791B-10	012791B-10MS	
Method Blank I.D.	SBLKWP	SBLKWP	SBLKWP	
Quant. Factor	1.95	1.85	1.83	
Naphthalene	U	U	100X	3.3
2-Methylnaphthalene	U	U	110	3.3
Acenaphthylene	2.4J	2.5J	130X	3.3
Acenaphthene	U	U	130X	3.3
Fluorene	U	U	140X	3.3
Phenanthrene	4.2J	5J	150X	3.3
Anthracene	U	2.2J	140X	3.3
Fluoranthene	6.5	9	120X	3.3
Pyrene	17	24	280EX	3.3
Benzo(a)anthracene	U	6.4	160EX	3.3
Chrysene	U	9.6	150X	3.3
Benzo(b)fluoranthene	8.4	8.6	160EX	3.3
Benzo(k)fluoranthene	5.6J	11	130X	3.3
Benzo(a)pyrene	U	8.4	140X	3.3
Indeno(1,2,3-cd)pyrene	U	U	220EX	3.3
Dibenzo(a,h)anthracene	U	U	220EX	3.3
Benzo(g,h,i)perylene	U	U	250EX	3.3
Date Received	11/20/01	11/20/01	11/20/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/04/01	12/05/01	12/05/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.5
7001-2791B
TRC ENVIRONMENTAL
PAH'S

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	VC10.D MSD 012791B-10 MSD SBLKWP 1.85	VC10.F 012791B-11 SBLKWP 1.80	VC10.H 012791B-12 SBLKWP 1.75	Quant. Limits with no Dilution
Naphthalene	73X	3.8J	3J	3.3
2-Methylnaphthalene	80	2.3J	2J	3.3
Acenaphthylene	98X	9.9	8	3.3
Acenaphthene	100X	1.3J	1J	3.3
Fluorene	100X	2.1J	U	3.3
Phenanthrene	110X	25	17	3.3
Anthracene	110X	8.6	7	3.3
Fluoranthene	88X	48	31	3.3
Pyrene	220EX	100	79	3.3
Benzo(a)anthracene	130X	43	26	3.3
Chrysene	120X	47	31	3.3
Benzo(b)fluoranthene	120X	40	30	3.3
Benzo(k)fluoranthene	110X	35	27	3.3
Benzo(a)pyrene	120X	50	35	3.3
Indeno(1,2,3-cd)pyrene	180EX	28	22	3.3
Dibenzo(a,h)anthracene	170EX	U	U	3.3
Benzo(g,h,i)perylene	210EX	38	31	3.3
Date Received Date Extracted Date Analyzed	11/20/01 11/28/01 12/05/01	11/20/01 11/28/01 12/05/01	11/20/01 11/28/01 12/05/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.6 Soil
7001-2791B
TRC ENVIRONMENTAL
PAH'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.G			Quant. Limits with no Dilution
Lab Sample I.D.	012791B-13			
Method Blank I.D.	SBLKWP			
Quant. Factor	1.81			
Naphthalene	U			3.3
2-Methylnaphthalene	1.7J			3.3
Acenaphthylene	9.9			3.3
Acenaphthene	U			3.3
Fluorene	U			3.3
Phenanthrene	11			3.3
Anthracene	4.7J			3.3
Fluoranthene	25			3.3
Pyrene	40			3.3
Benzo(a)anthracene	23			3.3
Chrysene	29			3.3
Benzo(b)fluoranthene	21			3.3
Benzo(k)fluoranthene	21			3.3
Benzo(a)pyrene	24			3.3
Indeno(1,2,3-cd)pyrene	15			3.3
Dibenzo(a,h)anthracene	U			3.3
Benzo(g,h,i)perylene	20			3.3
Date Received	11/20/01			
ate Extracted	11/28/01			
ate Analyzed	12/06/01			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE GC-2.0
7001-2791B
TRC ENVIRONMENTAL
8082 POLYCHLORINATED BIPHENYL'S

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 112601-B08 PBLK85 5.00	EB111701 012791B-08 PBLK85 1.05	PBLK85 QC2 112601-B08 QC2 PBLK85 5.00	Quant. Limits with no Dilution
Aroclor-1016	U	U	U	1.0
Aroclor-1221	U	U	U	2.0
Aroclor-1232	U	U	U	1.0
Aroclor-1242	U	U	19.X	1.0
Aroclor-1248	U	U	U	1.0
Aroclor-1254	U	U	U	1.0
Aroclor-1260	U	U	23.X	1.0
Date Received		11/20/01		
Date Extracted	11/26/01	11/26/01	11/26/01	
Date Analyzed	11/30/01	12/01/01	12/08/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-2.1
7001-2791B
TRC ENVIRONMENTAL
8082 POLYCHLORINATED BIPHENYL'S

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 112001-B08 PBLK75 1.00	EB111501 012791B-01 PBLK75 1.00	PBLK75 QC2 112001-B08 QC2 PBLK75 1.00	Quant. Limits with no Dilution
Aroclor-1016	U	U	U	1.0
Aroclor-1221	U	U	U	2.0
Aroclor-1232	U	U	U	1.0
Aroclor-1242	U	U	4.9X	1.0
Aroclor-1248	U	U	U	1.0
Aroclor-1254	U	U	U	1.0
Aroclor-1260	U	U	4.9X	1.0
Date Received		11/16/01		
Date Extracted	11/20/01	11/20/01	11/20/01	
Date Analyzed	12/08/01	12/08/01	12/08/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-2.2
7001-2791B
TRC ENVIRONMENTAL
8082 POLYCHLORINATED BIPHENYL'S

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 112601-S04 PCBLK83 0.200	VC10.MB 012791B-02 PCBLK83 0.330	VC10.L 012791B-03 PCBLK83 0.337	Quant. Limits with no Dilution
Aroclor-1016	U	U	U	33.
Aroclor-1221	U	U	U	67.
Aroclor-1232	U	U	U	33.
Aroclor-1242	U	U	U	33.
Aroclor-1248	U	U	U	33.
Aroclor-1254	U	U	2.9J	33.
Aroclor-1260	U	U	1.7J	33.
Date Received		11/16/01	11/16/01	
Date Extracted	11/26/01	11/26/01	11/26/01	
Date Analyzed	12/05/01	12/05/01	12/05/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-2.3
7001-2791B
TRC ENVIRONMENTAL
8082 POLYCHLORINATED BIPHENYL'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.K	VC15.B	VC10.J	Quant. Limits with no Dilution
Lab Sample I.D.	012791B-04	012791B-05	012791B-06	
Method Blank I.D.	PCBLK83	PCBLK83	PCBLK83	
Quant. Factor	0.322	0.325	0.336	
Aroclor-1016	U	U	U	33.
Aroclor-1221	U	U	U	67.
Aroclor-1232	U	U	U	33.
Aroclor-1242	U	U	U	33.
Aroclor-1248	U	U	U	33.
Aroclor-1254	U	U	U	33.
Aroclor-1260	U	1.4J	2.3J	33.
Date Received	11/16/01	11/16/01	11/16/01	
Date Extracted	11/26/01	11/26/01	11/26/01	
Date Analyzed	12/05/01	12/05/01	12/05/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-2.4
7001-2791B
TRC ENVIRONMENTAL
8082 POLYCHLORINATED BIPHENYL'S

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	VC10.E 012791B-09 PCBLK83 0.388	VC10.D 012791B-10 PCBLK83 0.364	VC10.D MS1 012791B-10 MS1 PCBLK83 0.368	Quant. Limits with no Dilution
Aroclor-1016	U	U	U	33.
Aroclor-1221	U	U	U	67.
Aroclor-1232	U	U	U	33.
Aroclor-1242	U	U	U	33.
Aroclor-1248	U	U	U	33.
Aroclor-1254	U	U	U	33.
Aroclor-1260	U	1.5J	100X	33.
Date Received	11/20/01	11/20/01	11/20/01	
Date Extracted	11/26/01	11/26/01	11/26/01	
Date Analyzed	12/05/01	12/05/01	12/05/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-2.5
7001-2791B
TRC ENVIRONMENTAL
8082 POLYCHLORINATED BIPHENYL'S

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	VC10.D MSB1 012791B-10 MSB1 PCBLK83 0.200	VC10.D MSD1 012791B-10 MSD1 PCBLK83 0.368	VC10.F 012791B-11 PCBLK83 0.356	Quant. Limits with no Dilution
Aroclor-1016	U	U	U	33.
Aroclor-1221	U	U	U	67.
Aroclor-1232	U	U	U	33.
Aroclor-1242	U	U	U	33.
Aroclor-1248	U	U	U	33.
Aroclor-1254	U	U	U	33.
Aroclor-1260	88.X	170X	2.6J	33.
Date Received Date Extracted Date Analyzed	11/20/01 11/26/01 12/05/01	11/20/01 11/26/01 12/05/01	11/20/01 11/26/01 12/05/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-2.6
7001-2791B
TRC ENVIRONMENTAL
8082 POLYCHLORINATED BIPHENYL'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.H	VC10.G		Quant. Limits with no Dilution
Lab Sample I.D.	012791B-12	012791B-13		
Method Blank I.D.	PCBLK83	PCBLK83		
Quant. Factor	0.347	0.364		
Aroclor-1016	U	U		33.
Aroclor-1221	U	U		67.
Aroclor-1232	U	U		33.
Aroclor-1242	U	U		33.
Aroclor-1248	U	U		33.
Aroclor-1254	U	U		33.
Aroclor-1260	2.9J	2.4J		33.
Date Received	11/20/01	11/20/01		
Date Extracted	11/26/01	11/26/01		
Date Analyzed	12/05/01	12/05/01		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE AS-1.0
7001-2791B
TRC ENVIRONMENTAL
MISCELLANEOUS ATOMIC SPECTROSCOPY

All values are ug/L.

Client Sample I.D.	EB111501	EB111701		
Lab Sample I.D.	012791B-01	012791B-08		
Arsenic	4.6U	4.6U		
Cadmium	0.80U	0.80U		
Chromium	1.0U	1.0U		
Copper	1.5U	1.5U		
Lead	2.3U	2.3U		
Mercury	0.10U	0.10U		
Nickel	1.3U	1.3U		
Zinc	5.2B	5.0U		

See Appendix for qualifier definitions

Soil

TABLE AS-1.1
7001-2791B
TRC ENVIRONMENTAL
MISCELLANEOUS ATOMIC SPECTROSCOPY

All values are mg/Kg dry weight basis.

Client Sample I.D.	VC10.MB	VC10.L	VC10.K	VC15.B
Lab Sample I.D.	012791B-02	012791B-03	012791B-04	012791B-05
Arsenic	6.8	6.8	5.3	5.6
Cadmium	0.21U	0.23U	0.18U	0.20U
Chromium	30.0	34.3	31.7	32.3
Copper	14.9	25.0	29.8	24.3
Lead	10.5	16.4	16.6	16.0
Mercury	0.018	0.064	0.022	0.021
Nickel	19.6	20.0	17.7	18.6
Zinc	61.4	79.6	80.9	76.5

See Appendix for qualifier definitions

TABLE AS-1.2
7001-2791B
TRC ENVIRONMENTAL
MISCELLANEOUS ATOMIC SPECTROSCOPY

All values are mg/Kg dry weight basis.

Client Sample I.D. / Lab Sample I.D.	VC10.J 012791B-06	VC10.E 012791B-09	VC10.D 012791B-10	VC10.DD 012791B-10D
Arsenic	7.5	6.7	8.5	8.0
Cadmium	0.26U	0.29U	0.25U	0.26U
Chromium	29.1	36.9	43.6	43.2
Copper	10.6	23.2	48.2	41.7
Lead	7.7	16.1	25.3	23.9
Mercury	0.032	0.026	0.018	0.0083U
Nickel	19.3	21.3	22.6	22.5
Zinc	55.8	78.4	114.	108.

See Appendix for qualifier definitions

TABLE AS-1.3
7001-2791B
TRC ENVIRONMENTAL
MISCELLANEOUS ATOMIC SPECTROSCOPY

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	VC10.DS	VC10.F	VC10.H	VC10.G
Lab Sample I.D.	012791B-10S	012791B-11	012791B-12	012791B-13
Arsenic	20.6	6.3	5.2	7.3
Cadmium	1.6	0.26U	0.17U	0.26U
Chromium	106.	37.9	27.1	35.6
Copper	121.	23.5	10.6	17.7
Lead	34.1	17.5	7.5	11.4
Mercury	0.074	0.028	0.044	0.016
Nickel	172.	22.2	18.1	22.1
Zinc	257.	81.5	53.0	72.2

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.MB

1 Name: STL Contract: _____

Lab Code: STL Case No.: 2791B SAS No.: _____ SDG No.: B2791

Matrix (soil/water): SOIL Lab Sample ID: 012791B-02

% Solids: 59.5 Date Received: 11/16/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	40.5				G
	TOC	9630		mg/Kg		D
	TOC	10100		mg/Kg		D
	TOC	10900		mg/Kg		D

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.L

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791B SAS No.: _____ SDG No.: B2791

Matrix (soil/water): SOIL Lab Sample ID: 012791B-03

% Solids: 57.7 Date Received: 11/16/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	42.3				G
	TOC	11000		mg/Kg		D
	TOC	12200		mg/Kg		D
	TOC	12000		mg/Kg		D

Comments:

FORM I - WC

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.K

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791B SAS No.: _____ SDG No.: B2791

Matrix (soil/water): SOIL Lab Sample ID: 012791B-04

% Solids: 58.2 Date Received: 11/16/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	41.8				G
	TOC	10700		mg/Kg		D
	TOC	10900		mg/Kg		D
	TOC	11200		mg/Kg		D

Comments:

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.J

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791B SAS No.: _____ SDG No.: B2791

Matrix (soil/water): SOIL Lab Sample ID: 012791B-06

% Solids: 59.1 Date Received: 11/16/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	40.9				G
	TOC	11000		mg/Kg		D
	TOC	10600		mg/Kg		D
	TOC	11500		mg/Kg		D

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.E

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791B SAS No.: _____ SDG No.: B2791

Matrix (soil/water): SOIL Lab Sample ID: 012791B-09

% Solids: 54.4 Date Received: 11/20/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	45.6				G
	TOC	14200		mg/Kg		D
	TOC	13800		mg/Kg		D
	TOC	13800		mg/Kg		D

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.D

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791B SAS No.: _____ SDG No.: B2791

Matrix (soil/water): SOIL Lab Sample ID: 012791B-10

% Solids: 53.9 Date Received: 11/20/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	46.1				G
	TOC	13200		mg/Kg		D
	TOC	13500		mg/Kg		D
	TOC	14200		mg/Kg		D

Comments:

FORM I - WC

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.F

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791B SAS No.: _____ SDG No.: B2791

Matrix (soil/water): SOIL Lab Sample ID: 012791B-11

% Solids: 56.2 Date Received: 11/20/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	43.8				G
	TOC	14500		mg/Kg		D
	TOC	13500		mg/Kg		D
	TOC	15000		mg/Kg		D

Comments:

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.H

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791B SAS No.: _____ SDG No.: B2791

Matrix (soil/water): SOIL Lab Sample ID: 012791B-12

% Solids: 57.5 Date Received: 11/20/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	42.5				G
	TOC	11800		mg/Kg		D
	TOC	10500		mg/Kg		D
	TOC	10700		mg/Kg		D

Comments:

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

VC10.G

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2791B SAS No.: _____ SDG No.: B2791

Matrix (soil/water): SOIL Lab Sample ID: 012791B-13

% Solids: 55.5 Date Received: 11/20/01

CAS No.	Analyte	Concentration	C	Units	Q	M
	Percent Moisture	44.5				G
	TOC	13800		mg/Kg		D
	TOC	13000		mg/Kg		D
	TOC	13000		mg/Kg		D

Comments:

FORM I - WC

SEVERN TRENT SERVICES

STL Connecticut

ORGANICS APPENDIX

U – Indicates that the compound was analyzed for but not detected.

J – Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B – This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N – Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S – Estimated due to surrogate outliers.

X – Matrix spike compound.

(1) - Cannot be separated

(2) – Decomposes to azobenzene. Measured and calibrated as azobenzene.

A – This flag indicates that a TIC is a suspected aldol condensation product.

E – Indicates that it exceeds calibration curve range.

D – This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C – Confirmed by GC/MS.

T – Compound present in TCLP blank.

P – This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

INORGANICS APPENDIX

C – Concentration qualifiers

U – Indicates analyte was not detected at method reporting limit.

B- Indicates analyte result between IDL and contract required detection limit (CRDL)

Q – QC qualifiers

E – Reported value is estimated because of the presence of interference

M – Duplicate injection precision not met

N – Spiked sample recovery not within control limits

S – The reported value was determined by the method of standard additions (MSA)

W – Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance.

* - Duplicate analysis not within control limit

+ - Correlation coefficient for MSA is less than 0.995

M – Method codes

P – ICP

A – Flame AA

F – Furnace AA

CV – Cold vapor AA (manual)

C – Cyanide

NR – Not required

NC – Not calculated as per protocols

SEVERN TRENT SERVICES

December 20, 2001

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

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Fax 203 929 8142
www.stl-inc.com

Ms. Megan Brown
TRC ENVIRONMENTAL
5 Waterside Crossing
Windsor, CT 06095

Dear Ms. Brown :

Please find enclosed the analytical results of 33 sample(s) received at our laboratory on November 7-16, 2001. This report contains sections addressing the following information at a minimum:

- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7001-2791A	Purchase Order #38077
Project ID: ISLANDER EAST	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 929-8140 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Very truly yours,

Jeffrey C. Curran
Laboratory Manager

JCC

This report contains 21 pages.

7001-2791A

TRC ENVIRONMENTAL

Case Narrative

Sample Receipt –The samples that were received on November 7th and 14th were received at 9°C and samples that were received on November 9th were received at 10°C and the samples received on November 16th were received at 8°C. The client was notified, and the laboratory was instructed to proceed with the analyses.

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All soil samples were very wet and required additional sodium sulfate during the extraction procedure.

All soil samples were spiked with surrogate and spike at the normal volume. However, samples were brought to 5 times the normal final volume, causing the spiked compounds to be elevated. Recoveries were calculated accordingly.

VC10.WMSB was not extracted. An LCS was extracted and analyzed with this batch of samples. An LCS is similar to an MSB with the exception of an additional Aroclor in the spike mix.

Surrogate percent recoveries were below QC limits for Tetrachloro-m-xylene in PBLK07 and PBLK07QC1.

Spike percent recoveries for beta-BHC, Heptachlor, and Heptachlor Epoxide were below QC limits in PBLK07QC1. These compounds were not present in any of the samples associated with this LCS.

Heptachlor Epoxide had only a 4 point initial calibration curves analyzed on 12/14/01 and 12/18/01 on the RTX-35 column. This compound had a contamination peak present that interfered with Heptachlor Epoxide in the first mix of the curve. This standard is being re-prepped.

The result for 4,4'-DDT had little to no recovery on the RTX-35 column in samples VC10.WMS2 and VC10.WMSD2. The sample matrix of the previous samples analyzed caused severe breakdown of this compound.

Results for 4,4'-DDD and Endosulfan II were reported from the RTX-35 column in PBLK58QC1, PBLK69QC1, and PBLK07QC1 due to coelution on the DB-1701 column.

Results for Endosulfan I and alpha-Chlordane were reported from the DB-1701 column in PBLK58QC1, PBLK69QC1, and PBLK07QC1 due to coelution on the RTX-35 column.

Results for Endosulfan I and alpha-Chlordane were elevated in PBLK65QC1 due to coelution.

The % breakdown for 4,4'-DDT was outside of QC limits in the IBS analyzed at 17:46 on 12/07/01 on the DB-1701 column. The % differences for Heptachlor, 4,4'-DDD, 4,4'-DDT, and Methoxychlor were below QC limits in the INDA3 analyzed at 18:27 on 12/07/01 on the DB-1701 column. Samples were run twice with similar results. Sample matrix was the cause. These were the end bracketing standards for samples VC10.AB, VC10.B, VC10.W, VC10.V, VC10.T, VC15.A, VC10.N, VC10.S, VC10.P, PBLK69, and PBLK69QC1.

The % breakdown for 4,4'-DDT was outside of QC limits in the IBS analyzed at 03:53 on 12/10/01 on the DB-1701 column. The % difference for Endosulfan Sulfate was above QC limits in the INDB3 standard analyzed at 05:15 on 12/11/01 on the DB-1701 column. Sample matrix was the cause of the breakdown. These were the end bracketing standards for samples VC10.WMS2, VC10.WMSD2, VC10.Q, VC10.RA, VC10.OA, VC10.OAD1, and VC10.OAD2. There was no Endosulfan Sulfate present in any of these samples above the reporting limit.

The % breakdown for 4,4'-DDT was outside of QC limits in the IBS analyzed at 20:14 on 12/18/01 on the DB-1701 column. Sample matrix was the cause. This was the end bracketing standard for samples VC10.I, VC10.C, PBLK07, and PBLK07QC1.

The % breakdown for 4,4'-DDT was complete in the IBS analyzed at 17:22 on 12/16/01 on the RTX-35 column. The % difference for Endrin Ketone was below QC limits in the INDB3 analyzed at 17:59 on 12/16/01 on the RTX-35 column. Sample matrix was the cause. These were the end bracketing standards for samples VC10.AB, VC10.B, VC10.W, VC10.V, VC10.T, VC15.A, VC10.N, PBLK69, and PBLK69QC1.

The % breakdown for 4,4'-DDT was complete in the IBS analyzed at 01:20 on 12/18/01 on the RTX-35 column. The % differences for gamma-BHC, Heptachlor, Endrin and 4,4'-DDD were outside of QC limits and there was no recovery of 4,4'-DDT or Methoxychlor in the INDA3 analyzed at 01:56 on 12/18/01 on the RTX-35 column. Sample matrix was the cause. These were the end bracketing standards for samples VC10.WMS2, VC10.WMSD2, VC10.S, VC10.P, VC10.Q, VC10.RA, VC10.OA, VC10.OAD1, and VC10.OAD2.

The % breakdown for 4,4'-DDT was complete in the IBS analyzed at 08:52 on 12/19/01 on the RTX-35 column. The % differences for beta-BHC, Endosulfan Sulfate, Endrin Ketone, alpha-Chlordane, gamma-Chlordane, and Decachlorobiphenyl were outside of QC limits inn the INDB3 standard analyzed at 09:29 on 12/19/01 on the RTX-35 column. Sample matrix was the cause. These were the end bracketing standards for samples VC10.I, VC10.C, PBLK07, and PBLK07QC1.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:
Sample ID – VC10.B
Compound – 4,4'-DDE

$$\frac{(70389\text{area})(2000\text{ul})}{(11020531\text{area/ng})(30.5\text{g})(.49)(1\text{ul})} = 0.85\mu\text{g/kg}$$

Aqueous

TABLE GC-1.0
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 111401-B04 PBLK61 1.00	EB110601 012791A-01 PBLK61 1.00	PBLK61 QC1 111401-B04 QC1 PBLK61 1.00	Quant. Limits with no Dilution
alpha-BHC	U	U	0.19X	0.050
beta-BHC	U	U	0.21X	0.050
delta-BHC	U	U	0.14X	0.050
gamma-BHC (Lindane)	U	U	0.18X	0.050
Heptachlor	U	U	0.21X	0.050
Aldrin	U	U	0.19X	0.050
Heptachlor Epoxide	U	U	0.20X	0.050
Endosulfan I	U	U	0.18X	0.050
Dieldrin	U	U	0.21X	0.10
4,4'-DDE	U	U	0.21X	0.10
Endrin	U	U	0.22X	0.10
Endosulfan II	U	U	0.21X	0.10
4,4'-DDD	U	U	0.20X	0.10
Endosulfan Sulfate	U	U	0.19X	0.10
4,4'-DDT	U	U	0.20X	0.10
Methoxychlor	U	U	0.25JX	0.50
Endrin Ketone	U	U	0.22X	0.10
drin Aldehyde	U	U	0.20X	0.10
lpha-Chlordane	U	U	0.19X	0.050
gamma-Chlordane	U	U	0.20X	0.050
Toxaphene	U	U	U	2.5
Date Received		11/07/01		
Date Extracted	11/14/01	11/14/01	11/14/01	
Date Analyzed	11/16/01	11/16/01	11/16/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE GC-1.1
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/L.

Client Sample I.D.	Method Blank	EB110801	EB111301	Quant. Limits with no Dilution
Lab Sample I.D.	111601-B06	012791A-04	012791A-11	
Method Blank I.D.	PBLK65	PBLK65	PBLK65	
Quant. Factor	1.00	1.00	1.00	
alpha-BHC	U	U	U	0.050
beta-BHC	U	U	U	0.050
delta-BHC	U	U	U	0.050
gamma-BHC (Lindane)	U	U	U	0.050
Heptachlor	U	U	U	0.050
Aldrin	U	U	U	0.050
Heptachlor Epoxide	U	U	U	0.050
Endosulfan I	U	U	U	0.050
Dieldrin	U	U	U	0.10
4,4'-DDE	U	U	U	0.10
Endrin	U	U	U	0.10
Endosulfan II	U	U	U	0.10
4,4'-DDD	U	U	U	0.10
Endosulfan Sulfate	U	U	U	0.10
4,4'-DDT	U	U	U	0.10
Methoxychlor	U	U	U	0.50
Endrin Ketone	U	U	U	0.10
Endrin Aldehyde	U	U	U	0.10
alpha-Chlordane	U	U	U	0.050
gamma-Chlordane	U	U	U	0.050
Toxaphene	U	U	U	2.5
Date Received		11/09/01	11/14/01	
Date Extracted	11/16/01	11/16/01	11/16/01	
Date Analyzed	11/22/01	11/22/01	11/22/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE GC-1.2
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	PBLK65 QC1 111601-B06 QC1 PBLK65 1.00			Quant. Limits with no Dilution
alpha-BHC	0.18X			0.050
beta-BHC	0.20X			0.050
delta-BHC	0.12X			0.050
gamma-BHC (Lindane)	0.18X			0.050
Heptachlor	0.19X			0.050
Aldrin	0.18X			0.050
Heptachlor Epoxide	0.19X			0.050
Endosulfan I	0.38X			0.050
Dieldrin	0.19X			0.10
4,4'-DDE	0.19X			0.10
Endrin	0.20X			0.10
Endosulfan II	0.20X			0.10
4,4'-DDD	0.17X			0.10
Endosulfan Sulfate	0.19X			0.10
4,4'-DDT	0.19X			0.10
Methoxychlor	0.26JX			0.50
ndrin Ketone	0.22X			0.10
drin Aldehyde	0.21X			0.10
alpha-Chlordane	0.36X			0.050
gamma-Chlordane	0.18X			0.050
Toxaphene	U			2.5
Date Received				
Date Extracted	11/16/01			
Date Analyzed	11/22/01			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.3
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	VC10.I	VC10.C	Quant. Limits with no Dilution
Lab Sample I.D.	112801-B04	012791A-19	012791A-20	
Method Blank I.D.	PBLK07	PBLK07	PBLK07	
Quant. Factor	0.200	0.328	0.375	
alpha-BHC	0.042J	0.44JB	0.70B	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	U	1.7
Heptachlor	U	U	U	1.7
Aldrin	U	U	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	U	3.3
4,4'-DDE	U	U	U	3.3
Endrin	U	U	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	J	U	3.3
Endosulfan Sulfate	U	0.11J	0.16J	3.3
4,4'-DDT	U	U	U	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received		11/16/01	11/16/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/18/01	12/18/01	12/18/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.4
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	PBLK07 QC1 112801-B04 QC1 PBLK07 0.200			Quant. Limits with no Dilution
alpha-BHC	3.6BX			1.7
beta-BHC	4.9X			1.7
delta-BHC	2.0X			1.7
gamma-BHC (Lindane)	4.3X			1.7
Heptachlor	3.9X			1.7
Aldrin	4.4X			1.7
Heptachlor Epoxide	4.9X			1.7
Endosulfan I	4.8X			1.7
Dieldrin	5.4X			3.3
4,4'-DDE	5.6X			3.3
Endrin	6.1X			3.3
Endosulfan II	5.9X			3.3
4,4'-DDD	5.0X			3.3
Endosulfan Sulfate	4.8X			3.3
4,4'-DDT	5.7X			3.3
Methoxychlor	6.7X			17
Endrin ketone	5.8X			3.3
drin aldehyde	4.9X			3.9
lpha-Chlordane	5.0X			1.7
gamma-Chlordane	4.9X			1.7
Toxaphene	U			110
Date Received				
Date Extracted	11/28/01			
Date Analyzed	12/18/01			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.5
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 111901-B08 PBLK69 0.200	VC10.AB 012791A-02 PBLK69 0.362	VC10.B 012791A-03 PBLK69 0.401	Quant. Limits with no Dilution
alpha-BHC	U	0.11J	0.20J	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	U	1.7
Heptachlor	U	U	U	1.7
Aldrin	U	U	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	U	3.3
4,4'-DDE	U	U	0.85J	3.3
Endrin	U	U	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	U	3.3
Endosulfan Sulfate	U	U	0.24J	3.3
4,4'-DDT	U	U	U	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received		11/07/01	11/07/01	
Date Extracted	11/19/01	11/19/01	11/19/01	
Date Analyzed	12/07/01	12/07/01	12/07/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.6
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	VC10.W 012791A-05 PBLK69 0.234	VC10.W MS2 012791A-05 MS2 PBLK69 0.234	VC10.W MSD2 012791A-05 MSD2 PBLK69 0.234	Quant. Limits with no Dilution
alpha-BHC	U	0.12J	U	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	14.X	16.X	1.7
Heptachlor	U	11.X	12.X	1.7
Aldrin	U	16.X	16.X	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	32.X	33.X	3.3
4,4'-DDE	U	1.7	1.3	3.3
Endrin	U	30.X	33.X	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	13.	10.	3.3
Endosulfan Sulfate	U	U	U	3.3
4,4'-DDT	U	6.8X	6.2X	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	3.0	2.2	3.3
Endrin aldehyde	U	U	U	3.3
Alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/09/01	11/09/01	11/09/01	
Date Extracted	11/19/01	11/19/01	11/19/01	
Date Analyzed	12/07/01	12/10/01	12/11/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.7
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.V	VC10.UB	VC10.T	Quant. Limits with no Dilution
Lab Sample I.D.	012791A-06	012791A-07	012791A-08	
Method Blank I.D.	PBLK69	PBLK69	PBLK69	
Quant. Factor	0.229	0.459	0.428	
alpha-BHC	U	0.30J	0.51J	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	U	1.7
Heptachlor	U	U	U	1.7
Aldrin	U	U	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	U	3.3
4,4'-DDE	U	U	U	3.3
Endrin	U	U	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	U	3.3
Endosulfan Sulfate	U	U	U	3.3
4,4'-DDT	U	U	U	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/09/01	11/09/01	11/09/01	
Date Extracted	11/19/01	11/19/01	11/19/01	
Date Analyzed	12/07/01	12/07/01	12/07/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.8
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC15.A	VC10.N	VC10.S	Quant. Limits with no Dilution
Lab Sample I.D.	012791A-09	012791A-12	012791A-13	
Method Blank I.D.	PBLK69	PBLK69	PBLK69	
Quant. Factor	0.232	0.346	0.432	
alpha-BHC	0.094J	0.20J	0.37J	1.7
beta-BHC	U	U	U	1.7

[redacted]

Soil

TABLE GC-1.9
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.P	VC10.Q	VC10.RA	Quant. Limits with no Dilution
Lab Sample I.D.	012791A-15	012791A-16	012791A-17	
Method Blank I.D.	PBLK69	PBLK69	PBLK69	
Quant. Factor	0.376	0.387	0.346	
alpha-BHC	0.35J	0.50J	U	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	U	1.7
Heptachlor	U	U	U	1.7
Aldrin	U	U	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	U	3.3
4,4'-DDE	U	U	U	3.3
Endrin	U	U	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	U	3.3
Endosulfan Sulfate	0.26J	U	0.35J	3.3
4,4'-DDT	U	U	U	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/14/01	11/14/01	11/14/01	
Date Extracted	11/19/01	11/19/01	11/19/01	
Date Analyzed	12/07/01	12/10/01	12/10/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.10
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.OA	VC10.OA D1	VC10.OA D2	Quant. Limits with no Dilution
Lab Sample I.D.	012791A-18	012791A-18D1	012791A-18D2	
Method Blank I.D.	PBLK69	PBLK69	PBLK69	
Quant. Factor	0.358	0.359	0.361	
alpha-BHC	0.59J	0.29J	0.62	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	U	1.7
Heptachlor	U	U	U	1.7
Aldrin	U	U	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	U	3.3
4,4'-DDE	U	U	U	3.3
Endrin	U	U	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	U	3.3
Endosulfan Sulfate	0.48J	0.37J	U	3.3
4,4'-DDT	U	U	U	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
drin aldehyde	U	U	U	3.9
lpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/14/01	11/14/01	11/14/01	
Date Extracted	11/19/01	11/19/01	11/19/01	
Date Analyzed	12/10/01	12/10/01	12/10/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.11
7001-2791A
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	PBLK69 QC1 111901-B08 QC1 PBLK69 0.200			Quant. Limits with no Dilution
alpha-BHC	5.3X			1.7
beta-BHC	5.4X			1.7
delta-BHC	3.7X			1.7
gamma-BHC (Lindane)	5.5X			1.7
Heptachlor	5.3X			1.7
Aldrin	5.5X			1.7
Heptachlor Epoxide	5.7X			1.7
Endosulfan I	5.0X			1.7
Dieldrin	6.5X			3.3
4,4'-DDE	6.1X			3.3
Endrin	6.3X			3.3
Endosulfan II	6.0X			3.3
4,4'-DDD	6.4X			3.3
Endosulfan Sulfate	5.8X			3.3
4,4'-DDT	6.9X			3.3
Methoxychlor	7.7X			17.
Endrin ketone	7.0X			3.3
Endrin aldehyde	4.1X			3.9
alpha-Chlordane	5.0X			1.7
gamma-Chlordane	5.6X			1.7
Toxaphene	U			110
Date Received				
Date Extracted	11/19/01			
Date Analyzed	12/07/01			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

SEVERN TRENT SERVICES

STL Connecticut

ORGANICS APPENDIX

U – Indicates that the compound was analyzed for but not detected.

J – Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B – This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N – Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S – Estimated due to surrogate outliers.

X – Matrix spike compound.

(1) - Cannot be separated

(2) – Decomposes to azobenzene. Measured and calibrated as azobenzene.

A – This flag indicates that a TIC is a suspected aldol condensation product.

E – Indicates that it exceeds calibration curve range.

D – This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C – Confirmed by GC/MS.

T – Compound present in TCLP blank.

P – This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

SEVERN TRENT SERVICES

December 28, 2001

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

Tel: 203 929 8140
Fax: 203 929 8142
www.stl-inc.com

Ms. Megan Brown
TRC ENVIRONMENTAL
5 Waterside Crossing
Windsor, CT 06095

Dear Ms. Brown :

Please find enclosed the analytical results of 24 sample(s) received at our laboratory on November 16-20, 2001. This report contains sections addressing the following information at a minimum:

- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7001-2791B	Purchase Order #38077
Project ID: ISLANDER EAST	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 929-8140 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Very truly yours,

Jeffrey C. Curran
Laboratory Manager

JCC

This report contains 22 pages.

7001-2791B
TRC ENVIRONMENTAL

Case Narrative

Sample Receipt –The samples were received at 8°C. The client was notified, and the laboratory was instructed to proceed with the analyses.

Polychlorinated Biphenyls (PCB's) - PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All soil samples were acid and sulfur cleaned up prior to analysis.

All soil samples really could have used more sulfur cleanup, but due to limited extract volume this was not possible.

Samples were brought to a 2ml final volume in order to meet client required detection limits.

The amount spiked was not adjusted for the lower final volume for the QC checks and MS/MSD's.

The surrogate, tetrachlorometaxylene, was outside of retention time windows on the RTX-35 column in samples PBLK83, VC10.L, VC10.K, VC15.B, VC10.J, VC10.D, VC10.F, VC10.H, VC10.H, VC10.G, VC10.DMSB1, and VC10.DMS1. This shift was taken into consideration when samples were reviewed for target compounds.

The surrogate, tetrachlorometaxylene, was outside of retention time windows on the RTX-35 column in the AR16603 and PIBLK continuing calibration checks analyzed on 12/7/01 at 12:42, 13:22, 23:25; and 12/8/01 at 00:46. These were bracketing standards for PBLK83, VC10.L, VC10.K, VC15.B, VC10.J, VC10.D, VC10.F, VC10.H, VC10.H, VC10.G, and VC10.DMS1.
This shift was taken into consideration when samples were reviewed for target compounds.

The %RPD of Aroclor 1260 for samples VC10.DMS/MSD was over QC criteria.

The Aroclor 1260 spike present in sample VC10.DMSB was outside of retention time windows on the RTX-35 column. This shift was taken into consideration when the sample was reviewed for target compounds.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:
Sample ID –VC10.DMSB1
Compound - Aroclor 1260 peak at retention time 22.23 on the RTX-35 column.

$$\frac{(500433\text{area})(2000\text{ul})}{(351115\text{area/ng})(30\text{g})(1\text{ul})} = 95\text{ug/kg}$$

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All soil samples were sulfur cleaned up prior to analysis.

Soil samples were brought to a 2ml final volume in order to meet client required detection limits.

The amount spiked was not adjusted for the lower final volume for the soil samples.

An LCS was not extracted with sample EB111701.

Surrogate percent recovery for Tetrachloro-m-xylene was below QC limits in PBLK07, PBLK07QC1, and VC10.DMSB2.

Spike recoveries for beta-BHC, gamma-BHC, Heptachlor, and Heptachlor Epoxide were below QC limits in PBLK07QC1. These compounds were not present in any of the associated samples above the reporting limit. A new LCS solution has been re-prepped.

Spike recoveries for 4,4'-DDD and Endosulfan II were elevated in PBLK75QC1 due to coelution of these compounds on both columns. Carrier gas flows have been adjusted on one of the columns to improve separation.

Results for Aldrin were reported from the DB-1701 column in VC10.B due to sample matrix interference on the RTX-35 column.

Results for 4,4'-DDD and Endosulfan II were reported from the RTX-35 column in PBLK07QC1 due to coelution on the DB-1701 column.

Results for Endosulfan I and alpha-Chlordane were reported from the DB-1701 column in PBLK07QC1 due to coelution on the RTX-35 column.

The % difference for Tetrachloro-m-xylene was below QC limits in the INDA3 standard analyzed at 11:30 on 12/8/01 on the DB-1701 column. This was the end standard for samples EB111501, PBLK79, and PBLK79QC1.

The % breakdown for 4,4'-DDT was outside of QC limits in the IBS analyzed at 10:41 on 12/15/01 on the DB-1701 column. The % difference for Endrin Ketone was below QC limits in the INDB3 standard analyzed at 11:35 on 12/15/01 on the DB-1701 column.

These were the end standards for samples VC10.MB, VC10.L, VC10.K, VC15.B, VC10.J, VC10.DMSB2, PBLK07, and PBLK07QC1. Sample matrix was the cause.

The % breakdown for 4,4'-DDT was outside of QC limits in the IBS analyzed at 00:03 on 12/17/01 on the DB-1701 column. The % differences for Heptachlor, 4,4'-DDD, 4,4'-DDT, and Methoxychlor were below QC limits in the INDA3 standard analyzed at 00:44 on 12/17/01 on the DB-1701 column. These were the end standards for samples VC10.E, VC10.D, VC10.F, VC10.H, VC10.G, VC10.DMS2, and VC10.DMSD2. Sample matrix was the cause.

The % breakdown for 4,4'-DDT was complete in the IBS analyzed at 08:52 on 12/19/01 on the RTX-35 column. The % differences for beta-BHC, Endosulfan Sulfate, Endrin Ketone, Endrin aldehyde, alpha-Chlordane, gamma-Chlordane, and Decachlorobiphenyl were below QC limits in the INDB3 standard analyzed at 09:29 on 12/19/01 on the RTX-35 column. These were the end standards for samples PBLK07, PBLK07QC1, VC10.MB, VC10.L, VC10.K, VC15.B, VC10.J, VC10.E, VC10.D, VC10.F, VC10.H, VC10.G, VC10.DMSB2, VC10.DMS2, and VC10.DMSD2. Sample matrix was the cause.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID –VC10.K

Compound – Aldrin

$$\frac{(82918\text{area})(2000\text{ul})}{(9476106\text{area/ng})(30.9\text{g})(0.61)(1\text{ul})} = 0.93 \text{ ug/Kg}$$

Aqueous

TABLE GC-1.0
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 112601-B08 PBLK85 1.00	EB111701 012791B-08 PBLK85 1.05		Quant. Limits with no Dilution
alpha-BHC	U	U		0.050
beta-BHC	U	U		0.050
delta-BHC	U	U		0.050
gamma-BHC (Lindane)	U	U		0.050
Heptachlor	U	U		0.050
Aldrin	U	U		0.050
Heptachlor Epoxide	U	U		0.050
Endosulfan I	U	U		0.050
Dieldrin	U	U		0.10
4,4'-DDE	U	U		0.10
Endrin	U	U		0.10
Endosulfan II	U	U		0.10
4,4'-DDD	U	U		0.10
Endosulfan Sulfate	U	U		0.10
4,4'-DDT	U	U		0.10
Methoxychlor	U	U		0.50
drin Ketone	U	U		0.10
drin Aldehyde	U	U		0.10
alpha-Chlordane	U	U		0.050
gamma-Chlordane	U	U		0.050
Toxaphene	U	U		2.5
Date Received		11/20/01		
Date Extracted	11/26/01	11/26/01		
Date Analyzed	12/21/01	12/21/01		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.1
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 112001-B08 PBLK75 1.00	EB111501 012791B-01 PBLK75 1.00	PBLK75 QC1 112001-B08 QC1 PBLK75 1.00	Quant. Limits with no Dilution
alpha-BHC	U	U	0.18X	0.050
beta-BHC	U	U	0.24X	0.050
delta-BHC	U	U	0.13X	0.050
gamma-BHC (Lindane)	U	U	0.21X	0.050
Heptachlor	U	U	0.22X	0.050
Aldrin	U	U	0.21X	0.050
Heptachlor Epoxide	U	U	0.22X	0.050
Endosulfan I	U	U	0.21X	0.050
Dieldrin	U	U	0.23X	0.10
4,4'-DDE	U	U	0.22X	0.10
Endrin	U	U	0.23X	0.10
Endosulfan II	U	U	0.41X	0.10
4,4'-DDD	U	U	0.48X	0.10
Endosulfan Sulfate	U	U	0.20X	0.10
4,4'-DDT	U	U	0.24X	0.10
Methoxychlor	U	U	0.29JX	0.50
Endrin Ketone	U	U	0.25X	0.10
Endrin Aldehyde	U	U	0.23X	0.10
alpha-Chlordane	U	U	0.23X	0.050
gamma-Chlordane	U	U	0.23X	0.050
Toxaphene	U	U	U	2.5
Date Received		11/16/01		
Date Extracted	11/20/01	11/20/01	11/20/01	
Date Analyzed	12/08/01	12/08/01	12/08/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.2
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 112801-B04 PBLK07 0.200	VC10.MB 012791B-02 PBLK07 0.658	VC10.L 012791B-03 PBLK07 0.338	Quant. Limits with no Dilution
alpha-BHC	0.042J	0.87JB	0.56JB	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	U	1.7
Heptachlor	U	U	U	1.7
Aldrin	U	U	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	U	3.3
4,4'-DDE	U	U	U	3.3
Endrin	U	U	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	U	3.3
Endosulfan Sulfate	U	U	U	3.3
4,4'-DDT	U	U	U	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
drin aldehyde	U	U	U	3.9
lpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received		11/16/01	11/16/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/15/01	12/15/01	12/15/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.3
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.K	VC15.B	VC10.J	Quant. Limits with no Dilution
Lab Sample I.D.	012791B-04	012791B-05	012791B-06	
Method Blank I.D.	PBLK07	PBLK07	PBLK07	
Quant. Factor	0.318	0.326	0.330	
alpha-BHC	0.54B	0.41JB	0.67B	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	U	1.7
Heptachlor	U	U	U	1.7
Aldrin	0.93	0.44J	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	0.30J	0.18J	0.16J	3.3
4,4'-DDE	U	U	U	3.3
Endrin	U	U	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	U	3.3
Endosulfan Sulfate	0.17J	0.28J	0.21J	3.3
4,4'-DDT	U	U	U	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	0.29J	U	0.23J	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/16/01	11/16/01	11/16/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/15/01	12/15/01	12/15/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.4 Soil
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.E	VC10.D	VC10.D MS2	Quant. Limits with no Dilution
Lab Sample I.D.	012791B-09	012791B-10	012791B-10 MS2	
Method Blank I.D.	PBLK07	PBLK07	PBLK07	
Quant. Factor	0.386	0.370	0.366	
alpha-BHC	0.39JB	0.31JB	0.54JB	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	20.X	1.7
Heptachlor	0.24J	U	18.X	1.7
Aldrin	U	U	24.X	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	46.X	3.3
4,4'-DDE	0.63J	0.53J	4.1	3.3
Endrin	U	U	48.X	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	19.	3.3
Endosulfan Sulfate	U	U	U	3.3
4,4'-DDT	U	U	21.X	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
drin aldehyde	U	U	U	3.9
pha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/20/01	11/20/01	11/20/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/16/01	12/16/01	12/16/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.5 Soil
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.D MSB2	VC10.D MSD2	VC10.F	Quant. Limits with no Dilution
Lab Sample I.D.	012791B-10 MSB2	012791B-10 MSD2	012791B-11	
Method Blank I.D.	PBLK07	PBLK07	PBLK07	
Quant. Factor	0.200	0.366	0.364	
alpha-BHC	0.052JB	0.54JB	U	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	8.1X	21.X	U	1.7
Heptachlor	7.0X	18.X	U	1.7
Aldrin	8.1X	24.X	0.95	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	23.X	49.X	U	3.3
4,4'-DDE	1.8	2.7	U	3.3
Endrin	24.X	49.X	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	0.19J	18.	U	3.3
Endosulfan Sulfate	U	U	0.60J	3.3
4,4'-DDT	23.X	15.X	U	3.3
Methoxychlor	1.0J	U	U	17.
Endrin ketone	0.18J	U	U	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/20/01	11/20/01	11/20/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/15/01	12/16/01	12/16/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.6
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.H	VC10.G	PBLK07 QC1 112801-B04 QC1	Quant. Limits with no Dilution
Lab Sample I.D.	012791B-12	012791B-13	PBLK07	
Method Blank I.D.	PBLK07	PBLK07	PBLK07	
Quant. Factor	0.347	0.362	0.200	
alpha-BHC	0.61B	0.45JB	3.3BX	1.7
beta-BHC	U	U	4.4X	1.7
delta-BHC	U	U	1.8X	1.7
gamma-BHC (Lindane)	U	U	3.9X	1.7
Heptachlor	U	U	3.7X	1.7
Aldrin	0.67	U	4.0X	1.7
Heptachlor Epoxide	U	U	4.6X	1.7
Endosulfan I	U	U	4.4X	1.7
Dieldrin	U	U	5.3X	3.3
4,4'-DDE	U	U	5.3X	3.3
Endrin	U	U	5.8X	3.3
Endosulfan II	U	U	5.9X	3.3
4,4'-DDD	U	U	5.0X	3.3
Endosulfan Sulfate	0.18J	U	4.7X	3.3
4,4'-DDT	U	U	5.7X	3.3
Methoxychlor	U	U	6.7X	17.
drin ketone	U	U	5.5X	3.3
ndrin aldehyde	U	U	4.3X	3.9
alpha-Chlordane	U	U	4.6X	1.7
gamma-Chlordane	U	U	4.7X	1.7
Toxaphene	U	U	U	110
Date Received	11/20/01	11/20/01		
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/16/01	12/16/01	12/15/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.0
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	EB111701		Quant. Limits with no Dilution
Lab Sample I.D.	112601-B08	012791B-08		
Method Blank I.D.	PBLK85	PBLK85		
Quant. Factor	1.00	1.05		
alpha-BHC	U	U		0.050
beta-BHC	U	U		0.050
delta-BHC	U	U		0.050
gamma-BHC (Lindane)	U	U		0.050
Heptachlor	U	U		0.050
Aldrin	U	U		0.050
Heptachlor Epoxide	U	U		0.050
Endosulfan I	U	U		0.050
Dieldrin	U	U		0.10
4,4'-DDE	U	U		0.10
Endrin	U	U		0.10
Endosulfan II	U	U		0.10
4,4'-DDD	U	U		0.10
Endosulfan Sulfate	U	U		0.10
4,4'-DDT	U	U		0.10
Methoxychlor	U	U		0.50
Endrin Ketone	U	U		0.10
Endrin Aldehyde	U	U		0.10
alpha-Chlordane	U	U		0.050
gamma-Chlordane	U	U		0.050
Toxaphene	U	U		2.5
Date Received		11/20/01		
Date Extracted	11/26/01	11/26/01		
Date Analyzed	12/21/01	12/21/01		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.1
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 112001-B08 PBLK75 1.00	EB111501 012791B-01 PBLK75 1.00	PBLK75 QC1 112001-B08 QC1 PBLK75 1.00	Quant. Limits with no Dilution
alpha-BHC	U	U	0.18X	0.050
beta-BHC	U	U	0.24X	0.050
delta-BHC	U	U	0.13X	0.050
gamma-BHC (Lindane)	U	U	0.21X	0.050
Heptachlor	U	U	0.22X	0.050
Aldrin	U	U	0.21X	0.050
Heptachlor Epoxide	U	U	0.22X	0.050
Endosulfan I	U	U	0.21X	0.050
Dieldrin	U	U	0.23X	0.10
4,4'-DDE	U	U	0.22X	0.10
Endrin	U	U	0.23X	0.10
Endosulfan II	U	U	0.41X	0.10
4,4'-DDD	U	U	0.48X	0.10
Endosulfan Sulfate	U	U	0.20X	0.10
4,4'-DDT	U	U	0.24X	0.10
Methoxychlor	U	U	0.29JX	0.50
Endrin Ketone	U	U	0.25X	0.10
Endrin Aldehyde	U	U	0.23X	0.10
alpha-Chlordane	U	U	0.23X	0.050
gamma-Chlordane	U	U	0.23X	0.050
Toxaphene	U	U	U	2.5
Date Received				
Date Extracted	11/20/01	11/16/01 11/20/01	11/20/01	
Date Analyzed	12/08/01	12/08/01	12/08/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.2
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 112801-B04 PBLK07 0.200	VC10.MB 012791B-02 PBLK07 0.658	VC10.L 012791B-03 PBLK07 0.338	Quant. Limits with no Dilution
alpha-BHC	0.042J	0.87JB	0.56JB	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	U	1.7
Heptachlor	U	U	U	1.7
Aldrin	U	U	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	U	3.3
4,4'-DDE	U	U	U	3.3
Endrin	U	U	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	U	3.3
Endosulfan Sulfate	U	U	U	3.3
4,4'-DDT	U	U	U	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received		11/16/01	11/16/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/15/01	12/15/01	12/15/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.3
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.K	VC15.B	VC10.J	Quant. Limits with no Dilution
Lab Sample I.D.	012791B-04	012791B-05	012791B-06	
Method Blank I.D.	PBLK07	PBLK07	PBLK07	
Quant. Factor	0.318	0.326	0.330	
alpha-BHC	0.54B	0.41JB	0.67B	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	U	1.7
Heptachlor	U	U	U	1.7
Aldrin	0.93	0.44J	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	0.30J	0.18J	U	3.3
4,4'-DDE	U	U	U	3.3
Endrin	U	U	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	U	3.3
Endosulfan Sulfate	0.17J	0.28J	0.21J	3.3
4,4'-DDT	U	U	U	3.3
Methoxychlor	U	U	U	17.
drin ketone	0.29J	U	0.23J	3.3
drin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	0.65	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/16/01	11/16/01	11/16/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/15/01	12/15/01	12/15/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.4
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	VC10.E 012791B-09 PBLK07 0.386	VC10.D 012791B-10 PBLK07 0.370	VC10.D MS2 012791B-10 MS2 PBLK07 0.366	Quant. Limits with no Dilution
alpha-BHC	0.39JB	0.31JB	0.54JB	1.7
beta-BHC	U	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	20.X	1.7
Heptachlor	0.24J	U	18.X	1.7
Aldrin	U	U	24.X	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	46.X	3.3
4,4'-DDE	0.63J	0.53J	4.1	3.3
Endrin	U	U	48.X	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	19.	3.3
Endosulfan Sulfate	U	U	U	3.3
4,4'-DDT	U	U	21.X	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/20/01	11/20/01	11/20/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/16/01	12/16/01	12/16/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.5 Soil
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	VC10.D MSB2	VC10.D MSD2	VC10.F	Quant. Limits with no Dilution
Lab Sample I.D.	012791B-10 MSB2	012791B-10 MSD2	012791B-11	
Method Blank I.D.	PBLK07	PBLK07	PBLK07	
Quant. Factor	0.200	0.366	0.364	
alpha-BHC	0.052JB	0.54JB	U	1.7
beta-BHC	0.25J	U	U	1.7
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	8.1X	21.X	U	1.7
Heptachlor	7.0X	18.X	U	1.7
Aldrin	8.1X	24.X	0.95	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	23.X	49.X	U	3.3
4,4'-DDE	1.8	2.7	U	3.3
Endrin	24.X	49.X	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	0.19J	18.	U	3.3
Endosulfan Sulfate	U	U	0.60J	3.3
4,4'-DDT	23.X	15.X	U	3.3
Methoxychlor	1.0J	U	U	17.
drin ketone	0.18J	U	U	3.3
drin aldehyde	U	U	U	3.9
alpha-Chlordane	U	U	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	11/20/01	11/20/01	11/20/01	
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/15/01	12/16/01	12/16/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE GC-1.6
7001-2791B
TRC ENVIRONMENTAL
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	VC10.H 012791B-12 PBLK07 0.347	VC10.G 012791B-13 PBLK07 0.362	PBLK07 QC1 112801-B04 QC1 PBLK07 0.200	Quant. Limits with no Dilution
alpha-BHC	0.61B	0.45JB	3.3BX	1.7
beta-BHC	U	U	4.4X	1.7
delta-BHC	U	U	1.8X	1.7
gamma-BHC (Lindane)	U	U	3.9X	1.7
Heptachlor	U	U	3.7X	1.7
Aldrin	0.67	U	4.0X	1.7
Heptachlor Epoxide	U	U	4.6X	1.7
Endosulfan I	U	U	4.4X	1.7
Dieldrin	U	U	5.3X	3.3
4,4'-DDE	U	U	5.3X	3.3
Endrin	U	U	5.8X	3.3
Endosulfan II	U	U	5.9X	3.3
4,4'-DDD	U	U	5.0X	3.3
Endosulfan Sulfate	0.18J	U	4.7X	3.3
4,4'-DDT	U	U	5.7X	3.3
Methoxychlor	U	U	6.7X	17.
Endrin ketone	U	U	5.5X	3.3
Endrin aldehyde	U	U	4.3X	3.9
alpha-Chlordane	U	U	4.6X	1.7
gamma-Chlordane	U	U	4.7X	1.7
Toxaphene	U	U	U	110
Date Received	11/20/01	11/20/01		
Date Extracted	11/28/01	11/28/01	11/28/01	
Date Analyzed	12/16/01	12/16/01	12/15/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

SEVERN TRENT SERVICES

STL Connecticut

ORGANICS APPENDIX

U – Indicates that the compound was analyzed for but not detected.

J – Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B – This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N – Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S – Estimated due to surrogate outliers.

X – Matrix spike compound.

(1) - Cannot be separated

(2) – Decomposes to azobenzene. Measured and calibrated as azobenzene.

A – This flag indicates that a TIC is a suspected aldol condensation product.

E – Indicates that it exceeds calibration curve range.

D – This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C – Confirmed by GC/MS.

T – Compound present in TCLP blank.

P – This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

SEVERN TRENT SERVICES

STL Connecticut

SUBCONTRACTED VOLATILE DATA

Client:	TRC ENVIRONMENTAL
Project ID:	ISLANDER EAST
P.O.	38077
SDG #:	A2791
STL ID:	7001-2791A

CASE NARRATIVE

A1K210141

The following report contains the analytical results for four water samples and thirteen solid samples submitted to STL North Canton by STL Connecticut, project number 7001-2791A. The samples were received November 21, 2001, according to documented sample acceptance procedures.

STL utilizes only USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

GC VOLATILES

Due to analyst error, no MS/MSD was performed; therefore, an LCS/LCSD was provided for batch 1330458.

An LCS/LCSD was provided for batch 1330464 since there was insufficient sample volume to perform an MS/MSD.

Sample V10.OA (REP 3) could not be analyzed. The sample vial leaked in transit from the STL Connecticut laboratory.